REMARKS

1. Specification Amendment and Status of Application

Applicant maintains that the earliest priority of the present application is 6 July 1999, which is the filing date of US Patent Application No. 09/348200 (the '200 Application). Applicant understands and acknowledges that the present patent application cannot directly claim priority on the '200 Application as the present application has a filing date after the abandonment date of the '200 Application. However, the present patent application does properly claim priority on US Patent Application No. 09/694404 (the '404 Application), which the examiner has acknowledged.

The '404 Application (now US Patent No. 6426406) properly claimed priority on the '200 Application - the '404 Application is a continuation-in-part of the '200 application. This is a fact, not an assertion. *See* US Patent No. 6426406 (copy of summary page attached). Therefore, any patent application properly claiming priority on the '404 Application claims priority through to the '200 Application for all common material. As a result, (1) all material in the present patent application common to both the '404 Application and the '200 Application has a priority filing date of 6 July 1999, the filing date of the '200 Application; (2) all material in the present patent application common to only the '404 Application has a priority filing date of 23 October 2000, the filing date of the '404 Application; and (3) all new material in the present patent application has a filing date of 28 September 2001, the filing date of the present patent application. This is the law. *See* 35 USC 120. The present patent application properly claimed priority on the '404 Application and the '404 Application properly claimed priority on the '200 Application, thus creating a proper priority chain.

All Applicant is doing in the amendment to the Cross-Reference To Related Application is setting forth the fact that the present patent application is a continuation-in-part of the '404 Application (which it properly is and which was contained in the original patent application) and that the '404 Application is a continuation-in-part of the '200 Application. Applicant has amended the wording in the Cross-Reference To Related Application to remove the direct claim of priority on the '200 Application, but

Applicant is still entitled to the priority of the '200 Application through the '404 Application.

2. Claim Amendments.

Claims 1, 9, and 31 have been amended to make it clear that the present invention is directed towards an invention in which the polymorph is controlled by the selection of the polarization of the laser light. Claims 1, 9, 31 or any claim dependant therefrom therefore is allowable. No new matter has been added.

Claims 9 and 10 were deemed allowable by the examiner if rewritten in independent form including all the limitations of the base claim (Claim 1 for both) and any intervening claims (none for both). Each of Claims 9 and 10 have been combined with Claim 1 and, as the examiner has stated, are allowable. No new matter has been added.

New Claim 46 is a combination of previously amended Claim 1 and original Claim 3. New Claims 47-59 are based on pending claims. No new matter has been added.

3. Nonstatutory Double Patenting and Not Patentably Distinct Rejections.

Applicant's (specifically Applicant Allan S. Myerson, PhD) has two lines of inventions. One line of invention is represented in the present application and certain of Applicant's other patent applications and issued patents, including some of the references cited by the examiner in the current Office Action. Another line of invention is represented in other patent applications and patents, also including some of the references cited by the examiner in the current Office Action. Applicant submits that there are two significant points that may help clear up the differences between Applicant's invention and the cited art.

There are two lines of applications that cover the two independent lines of inventions. The first line of applications (e.g. US Patent Application No. 6426406 issuing from US Patent Application No. 09/694404 and the present invention) we call the **Polymorph Line**. The Polymorph Line covers methods for nucleating polymorph crystals - that is the inventive method is a novel method for preparing polymorphs that

are not otherwise able to be prepared under traditional conditions and for preparing heretofore unknown polymorphs. As such, the Polymorph Line can be used to prepare novel crystal polymorphs that are not ordinarily present by the use of a laser to induce the formation of the polymorph. In many cases, Applicant's Polymorph Line provides a unique method to produce novel crystal compounds. The Polymorph Line of applications was invented by Drs. Myerson and Garetz.

The second line of applications (e.g. US Patent Applications Nos. 09/918935 and 10/222506) we call the **Protein Crystal Line**. The Protein Crystal Line covers methods for the nucleation of protein crystals irrespective of crystal structure and is used to prepare better (larger and purer) crystals that would otherwise normally nucleate in a solution by known methods. In fact, the purpose of the Protein Crystal Line of inventions is stated in at least one of the specifications, that is to "produce protein crystals of superior quality and larger size". Thus, by definition, the Protein Crystal Line is for producing improved versions of known crystals. In the Protein Crystal Line of inventions, a user selects wavelengths of light that can induce the nucleation of an improved crystal and can improve the time it takes to produce a crystal, irrespective of the type of crystal and specifically irrespective of the polymorphism of the crystal. Polymorphism simply is not relevant to the Protein Crystal Line and vice versa. The Protein Crystal Line of applications has been invented by solely by Dr. Myerson.

Although the Polymorph Line and the Protein Crystal Line of inventions have one common inventor (Dr. Myerson), they are not commonly assigned as they comprise different inventions for different entities. The Polymorph Line is assigned to Polytechnic University in New York and the Protein Crystal Line is assigned to Illinois Institute of Technology in Chicago.

A comparative review of the claims of each line of inventions unequivocally shows that the inventions are distinct from one another. The claims in the Polymorph Line are directed to the creation of polymorphs. The claims in the Protein Crystal Line are directed to the creation of larger and/or higher purity protein crystals. While both lines of methods use the same basic tools (the laser and some process steps), the results obtain are completely different. This is common in the filed of these inventions as most chemistry labs contain the same general array of equipment. However, the

manner in which the tools are used and the solutions selected result in the different inventions. In the Polymorph Line, the inventors were trying (and were successful) in producing polymorphs of crystals. In the Protein Crystal Line, the inventor was trying (and was successful) in producing protein crystals of larger size and/or higher purity. One does not anticipate or obviate the other.

In other words, in the Polymorph Line, the invention is to take a solution of a known substance and subject it to light so as to induce the nucleation of a polymorph. In the Protein Crystal Line, the invention is to take a solution of a protein, subject it to light so as to induce the nucleation of a protein crystal not only irrespective of polymorphism but also with the intent that the nucleated protein crystal is the commonly nucleated protein crystal, and to grow the crystal. One of ordinary skill in the art would not assume a polymorph-producing method would be use to induce and grow higher quality protein crystals or that a protein crystal-producing method would be used to induce polymorphs. Thus, one of ordinary skill in the polymorph art would not look to the protein crystal art, and vice versa.

In contrast to the Protein Crystal Line as exemplified by the cited US Patent Applications Nos. 09/918935 and 10/222506, the present invention is concerned with creating and producing polymorphs by varying the type and polarization of light impinging on a supersaturated solution. The present invention is only concerned with polymorphs of crystals, particularly with polymorphs that do not ordinarily nucleate in a supersaturated solution, and it would not have been obvious to those with skill in that art to produce protein or other common crystals as in the Protein Crystal Line. Quite simply, one looking to the Protein Crystal Line of inventions for methods for producing known crystals would not assume the same method could be used for producing polymorphs, known or unknown. These are just two different thought trains arguably leaving from the same station and using a similar train, but heading to and arriving in a different station using a different set of tracks.

Based on the amendments to Claim 1, 19, and 31, and the discussion provided above, Claims 1-5, 11-21, and 25-39 are not obvious in view of US Patent Application No. 10/222506 (which is the same as US Patent Publication No. 2003/0101926). Further, Claims 1-5, 11-21, and 25-39 are patentably distinct from US Patent

Application No. 10/222506. Additionally, Claims 1, 3-7, 9, and 11-18 are patentably distinct from US Patent Application No. 09/918935 (which is the same as US Patent Publication No. 2003/0024470).

4. 35 USC 102 Rejections

Anticipation under 35 USC 102(b) requires "the disclosure in a prior art reference each and every element of the claimed invention." *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 1 USPQ2d 1081 (Fed. Cir. 1986); *see also verdegall Bros. V. Union Oil Co. of California,* 814 F2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) ("a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference"). The absence of one element from the cited prior reference negates anticipation. *See Atlas Powder Co. v. E.I. du Pont de Nemours & Co.*, 224 USPQ2d 409 (Fed Cir. 1984). Further, the Examiner may not apply a theory analogous to the Doctrine of Equivalents to anticipate a claim. *See Richardson v. Suzuki Motor Co., Ltd.*, 3 USPQ2d 1766 (Fed. Cir 1987) (Federal Circuit held district court erred by instructing jury that anticipation could be found "by equivalents"). Also, when determining anticipation under 35 USC 102(b), the Examiner may not combine references. *Continental Can Co. USA, Inc.*, 20 USPQ2d 1746 (Fed Cir 1991). Anticipation was intended to apply in the limited situations in which one reference incorporates all the element of a claim in a subsequent invention because the nonobvious standard was intended to cover broader obvious leaps from a reference to a claim or from combined references to a claim. *See Titanium Metals Corp. v. Brenner*, 227 USPQ 773 (Fed. Cir. 1985).

Prior art for the purposes of anticipation is pertinent art recognized by persons of ordinary skill to be in the ***field of the invention***. *See In re Spada* 15 USPQ2d 1655, 1657 (Fed.Cir.1990). Prior art is pertinent if persons of ordinary skill in the art would have consulted art in that field to develop the invention given the nature of the problem. *See In re Paulsen*, 31 USPQ2d 1671 (Fed. Cir. 1994). Specifically, the pertinence of any reference is dependent upon whether it would suggest to persons skilled in the art to do the thing that the applicant has done, and the same is true in considering more than one reference or a reference alleged not to be in the particular art. *See In re*

Phipps, 69 USPQ 88 (CCPA 1946).

The federal circuit has applied anticipation narrowly. For example, the Federal Circuit affirmed a district court determination that patents related to a ceramic welding process for repairing industrial furnaces were not invalid for anticipation, notwithstanding that the claims of the patents overlapped with or read on either or both of two prior art patents, because the district court properly determined that the prior art patents were related to flame-spraying and to combustion at the furnace wall. *See Glaverbel Societe Anonyme And Fosbel, Inc. v. Northlake Marketing & Supply, Inc.*, 33 USPQ2d 1496 (Fed Cir. 1995). Even though both inventions had a general relation to combustion, they were not so related that one of ordinary skill in the ceramic welding art would look to the flame-spraying art or the furnace wall combustion art.

Thus, as discussed in more detail above in Section 3, a comparison of the claims of the Polymorph Line of inventions with the claims of the Protein Crystal Line of inventions shows that the inventions are distinct from one another, do not anticipate each other and do not obviate each other. The claims in the Polymorph Line are directed to the creation of polymorphs while the claims in the Protein Crystal Line are directed to the creation of larger and/or higher purity protein crystals.

Claims 1, 3-7, 9, and 11-18 and Claims 2, 5-7, 15, 19-23, 25-42, and 44 are not anticipated by US Patent Application No. 09/918935 (Myerson '935) or US Patent Publication No. US2003/0024470, which is the Publication of Myerson '935 (collectively, hereinafter Myerson '935) because Myerson '935 does not disclose every element claimed in the cited claims.

As US Patent Application No. 10/222506 (and its publication, US Patent Publication No. 2003/0101926, together referred to as Myerson '506) is a progeny application of Myerson '935, Myerson '506 discloses an invention related to the invention disclosed in Myerson '935. As such, Myerson '506 also cannot anticipate the present invention. Specifically, Myerson '506 does not disclose every element claimed in the cited claims.

More specifically, Myerson '935 and Myerson '506 are Protein Crystal Line inventions and disclose methods for the non-photochemical laser induced nucleation in which short high-intensity laser pulses are used to induce nucleation in supersaturated

solutions so as to allow the production and growth of higher quality crystals and/or higher quantities of crystals. Myerson '935 and Myerson '506 are directed specifically to the laser-induced nucleation of protein crystals in a particular solution. In fact, the methods in Myerson '935 and Myerson '506 as claimed requires "subjecting the supersaturated solution to the light ... so as to induce nucleation of the protein." Thus, the laser causes the nucleation of the solution.

Myerson '935 and Myerson '506 are not concerned with the production of polymorphs but rather the crystallization or nucleation of a solution without respect to polymorphs. In fact, **neither Myerson '935 nor Myerson '506 even discloses the word "polymorph" in their respective specifications**. As such, a person of skill in the art may use Myerson '935 or Myerson '506 to prepare crystals without knowledge of polymorphs and to produce crystals known in the art. Whether the nucleated protein crystal formed using the Myerson '935 or Myerson '506 methods is a polymorph is irrelevant to the Myerson '935 or Myerson '506 inventions.

In contrast, the present invention as claimed is directed towards a method for preparing crystal polymorphs and not for nucleating protein solutions. By the actual claim limitations, the method in Claims 1-12 includes subjecting a solution to ***light of a selected polarization state*** so to ***"induce the onset of nucleation of the crystal of the polymorph"***. As such, the present invention is not directed to preparing crystal structures in general, nucleating crystals, growing higher quality crystals or nucleating crystals of proteins, but rather specifically to selecting and preparing crystal structures with a particular polymorph that generally do not nucleate under ordinary conditions. As a polymorph of a substance can have significantly different properties from another polymorph of the same substance, a person of ordinary skill in the art needs some knowledge of polymorphs to understand the invention. Myerson '935 and Myerson '506, on the other hand, are for methods for nucleating and growing higher purity protein crystals, which inherently have known or easily discernable properties, and do not disclose or claim the production of polymorphs.

More importantly, even if Myerson '935 or Myerson '506 teach the preparation of a protein crystal using a similar method as in the present invention, Myerson '935 and Myerson '506 do not suggest or teach such a combination of elements, components or

step to prepare a crystal structure with an extraordinary polymorph. Specifically, one of ordinary skill in the art would not without Applicant's present invention select a wavelength or polarization state of light to create a polymorph of a crystal that does not ordinarily nucleate under ordinary conditions. Certainly, one of ordinary skill in the art does not ordinarily nucleate a solution with a light of a selected polarization state under ordinary conditions. In Myerson '935 and Myerson '506, the methods involve selecting a wavelength for growing a crystal of a known substance so to grow a better quality crystal in a shorter period of time. While crystals may inherently have polymorphs, this is entirely irrelevant to a comparison of the current invention and the Myerson '935 and Myerson '506 inventions, and one of skill in the art need not select a polarization state of light that nucleates a crystal with a different polymorph just because the art suggests that known protein crystals can be nucleated by a wavelength of light, even if the selected wavelengths are similar or identical. Specifically, following the teachings of Myerson '935 or Myerson '506, one of ordinary skill in the art will select a wavelength for the nucleation of a known protein crystal, which is not related to the polarization state needed to nucleate a polymorph.

Without Applicant's present invention, one of ordinary skill in the art would not use a laser or light of a ***specific polarization state*** to generate a polymorph of a crystal. Specifically, under ordinary situations, one of ordinary skill in the art can select a wavelength that can generate a particular crystal polymorph based on the known parameter, as was the case in the urea-water system. In fact, based on the Myerson '935 disclosure, one of ordinary skill in the art would only select a wavelength to produce a known protein crystal or one that ***does*** occur ordinarily. After the present invention, one of ordinary skill in the art would subject a supersaturated solution with a specific polarization of light so to create crystals with polymorphs through the selection of the polarization state of light.

As such, Myerson '935 and Myerson '506 cannot and do not anticipate the Claims of the present patent application. For these reasons, Applicant requests that the examiner withdraw the rejection based on Myerson '935 and Myerson '506.

5. Inventorship

Applicant maintains that, for the reasons stated above, the present invention is patentably different from the invention s disclosed in Myerson '935 and Myerson '506. Applicant also has amended Claim 1, 19, and 31 to make it clear that the present invention allows for the induction of nucleation of polymorph crystal by the selection of the polarization state of the light. As this aspect is not disclosed in Myerson '935 or Myerson '506, the present invention is not disclosed in Myerson '935 or Myerson '506.

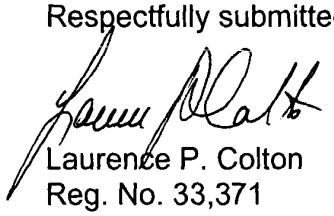
As such, Applicant requests that the examiner withdraw the allegation of conflicting subject matter between the present invention and Myerson '935 or Myerson '506.

CONCLUSION

Applicant believes it has fully addressed the examiner's concerns and the claims, as amended, are in condition for allowance, and Applicant respectfully requests such action.

If the examiner has any final concerns that can be addressed over the telephone, the examiner is invited to contact the below-signed patent lawyer of record.

Respectfully submitted,



Laurence P. Colton
Reg. No. 33,371

TECHNOPROP COLTON LLC
PO Box 567685
Atlanta GA 31156-7685 US

Tel: 770.522.9762
Fax: 770.522.9763
E-Mail: technoprop@technoprop.com

SPECIFICATION AMENDMENT

Amend the Cross-Reference to Related Application as follows:

The present invention is a continuation-in-part of US patent application no. 09/694404, filed on 23 October 2000, ~~now~~which issued as US Patent No. 6426406 on 30 July 2002, which in turn is a continuation-in-part of US patent application no. 09/348200, filed on 6 July 1999, abandoned on 8 November 2000.

CLAIMS AMENDMENTS

1. (currently amended) A method of preparing a crystal polymorph, comprising the steps of:

a. preparing a supersaturated solution of a known substance;

b. selecting a polarization state of light to induce the onset of nucleation of crystals of the polymorph of the known substance from the supersaturated solution; and

c. subjecting the supersaturated solution to the light for a period of time so as to induce the onset of nucleation of the crystals of the polymorph,

wherein the known substance is not urea or alumina hydrate and whereby the selected polarization state of the light controls the polymorph structure of the crystal.

2. (original) The method of preparing a crystal polymorph as claimed in Claim 1, wherein the supersaturated solution is aged for a period of 1 hour to 200 hours.

3. (original) The method of preparing a crystal polymorph as claimed in Claim 1, wherein the light is at most minimally absorbed by the supersaturated solution.

4. (original) The method of preparing a crystal polymorph as claimed in Claim 1, wherein the wavelength of the light is near infrared.

5. (original) The method of preparing a crystal polymorph as claimed in Claim 4, wherein the wavelength of the light is 1064 nm.

6. (original) The method of preparing a crystal polymorph as claimed in Claim 1, wherein the light has linear polarization.

7. (original) The method of preparing a crystal polymorph as claimed in Claim 1, wherein the light has circular polarization.

8. (original) The method of preparing a crystal polymorph as claimed in Claim 1, wherein the light has elliptical polarization.

9. (amended) A method of preparing a crystal polymorph, comprising the steps of:

a. preparing a supersaturated solution of a known substance;

b. selecting a polarization state of light to induce the onset of nucleation of crystals of the polymorph of the known substance from the supersaturated solution; and

c. subjecting the supersaturated solution to the light for a period of time so as to induce the onset of nucleation of the crystals of the polymorph,

wherein the known substance is not urea or alumina hydrate and ~~The method as claimed in Claim 1, wherein~~ the polymorph is used as a substitute for known polymorphs made under known conditions.

10. (amended) A method of preparing a crystal polymorph, comprising the steps of:

a. preparing a supersaturated solution of a known substance;

b. selecting a polarization state of light to induce the onset of nucleation of crystals of the polymorph of the known substance from the supersaturated solution; and

c. subjecting the supersaturated solution to the light for a period of time so as to induce the onset of nucleation of the crystals of the polymorph,

wherein the known substance is not urea or alumina hydrate and ~~The method as claimed in Claim 1, wherein~~ the polymorph is used as a seed material to create larger amounts of the polymorph to be used in known processes.

11. (original) The method as claimed in Claim 1, wherein supersaturation is achieved by a method selected from the group consisting of cooling, heating, solvent evaporation, and altering solvent composition.

12. (original) The method as claimed in Claim 11, wherein the solvent is selected from the group consisting of organic solvents, inorganic solvents, and supercritical solvents.

13. (original) The method as claimed in Claim 1, wherein the substance is selected from the group consisting of pharmaceuticals, amino acids, peptides, proteins, carbohydrates, amines, alkanes, alkenes, alkynes, aromatics, heterocyclic compounds, alcohols, organometallics, and carboxylic acids.

14. (previously amended) The method as claimed in Claim 1, wherein the light is a laser light and the laser light is pulsed.

15. (original) The method as claimed in Claim 14, wherein the laser light is pulsed at between 1 and 100 pulses per second.

16. (original) The method as claimed in Claim 15, wherein the laser light pulses at 10 pulses per second.

17. (previously amended) The method as claimed in Claim 1, wherein the light is a laser light and the supersaturated solution is subjected to the laser light for a period of between 0.01 second and 1 hour.

18. (original) The method as claimed in Claim 17, wherein the supersaturated solution is subjected to the laser light for a period of between 0.01 second and 60 seconds.

19. (currently amended) A method of preparing a crystal polymorph, comprising the steps of:

a. preparing a supersaturated solution of a known substance;

b. aging the supersaturated solution for a period of 1 hour to 200 hours;

c. subjecting the supersaturated solution to the light from a near-infrared laser emitting light at a selected polarization state for a period of time so as to induce the onset of nucleation of the crystals of the polymorph,

wherein the known substance is not urea or alumina hydrate and whereby the selected polarization state of light controls the polymorph structure of the crystal.

20. (original) The method of preparing a crystal polymorph as claimed in Claim 19, wherein the wavelength of the light is 1064 nm.

21. (original) The method of preparing a crystal polymorph as claimed in Claim 20, wherein the power of the light is between 0.1 GW/cm^2 and 10 GW/cm^2.

22. (original) The method of preparing a crystal polymorph as claimed in Claim 19, wherein the light has linear polarization.

23. (original) The method of preparing a crystal polymorph as claimed in Claim 19, wherein the light has circular polarization.

24. (previously amended) The method of preparing a crystal polymorph as claimed in Claim 19, wherein the light has elliptical polarization.

25. (original) The method as claimed in Claim 19, wherein the laser light is pulsed at between 1 to 100 pulses per second.

26. (original) The method as claimed in Claim 25, wherein the laser light pulses at 10 pulses per second.

27. (original) The method as claimed in Claim 26, wherein the supersaturated solution is subjected to the laser light for a period of between 0.01 second and 1 hour.

28. (original) The method as claimed in Claim 27, wherein the supersaturated solution is subjected to the laser light for a period of 0.01 second and 60 seconds and the light is at most minimally absorbed by the supersaturated solution.

29. (original) The method as claimed in Claim 25, wherein supersaturation is achieved by a method selected from the group consisting of cooling, heating, solvent evaporation, and altering solvent composition.

30. (original) The method as claimed in Claim 29, wherein the solvent is selected from the group consisting of organic solvents, inorganic solvents, and supercritical solvents.

31. (amended) A method of preparing a crystal polymorph from a known substance, comprising the steps of:

a. preparing a supersaturated solution of the known substance;

b. aging the supersaturated solution for a period of 1 hour to 200 hours;

c. selecting a polarization state of laser light to induce the onset of nucleation of crystals of the crystal polymorph of the known substance from the supersaturated solution, wherein the light is at most minimally absorbed by the supersaturated solution; and

d. subjecting the supersaturated solution to the laser light for between 0.01 second and 1 hour so as to induce the onset of nucleation of the crystals of the polymorph,

wherein the known substance is not urea or alumina hydrate and whereby the selected polarization state of light controls the polymorph structure of the crystal.

32. (original) The method as claimed in Claim 31, wherein the laser light is pulsed at between 1 and 100 pulses per second.

33. (original) The method as claimed in Claim 32, wherein the laser light pulses at 10 pulses per second.

34. (original) The method as claimed in Claim 33, wherein the supersaturated solution is subjected to the laser light for a period of between 0.01 second and 60 seconds.

35. (original) The method as claimed in Claim 31, wherein the substance is selected from the group consisting of pharmaceuticals, amino acids, peptides, proteins, carbohydrates, amines, alkanes, alkenes, alkynes, aromatics, heterocyclic compounds, alcohols, organometallics, and carboxylic acids.

36. (original) The method as claimed in Claim 35, wherein supersaturation is achieved by a method selected from the group consisting of cooling, heating, solvent evaporation, and altering solvent composition.

37. (previously amended) The method as claimed in Claim 36, wherein the solvent is selected from the group consisting of organic solvents, inorganic solvents, and supercritical solvents.

38. (original) The method of preparing a crystal polymorph as claimed in Claim 35, wherein the wavelength of the light is near infrared.

39. (original) The method of preparing a crystal polymorph as claimed in Claim 38, wherein the wavelength of the light is 1064 nm.

40. (original) The method of preparing a crystal polymorph as claimed in Claim 31, wherein the laser light has a polarization state selected from the group consisting of linear polarization, circular polarization, and elliptical polarization.

41. (original) The method of preparing a crystal polymorph as claimed in Claim 40, wherein the light has linear polarization.

42. (original) The method of preparing a crystal polymorph as claimed in Claim 40, wherein the light has circular polarization.

43. (original) The method of preparing a crystal polymorph as claimed in Claim 40, wherein the light has elliptical polarization.

44. (original) The method as claimed in Claim 31, wherein the polymorph is used as a substitute for known polymorphs made under known conditions.

45. (original) The method as claimed in Claim 31, wherein the polymorph is used as a seed material to create larger amounts of the polymorph to be used in known processes.

46. (new) A method of preparing a crystal polymorph, comprising the steps of:

a. preparing a supersaturated solution of a known substance;

b. selecting a polarization state of light to induce the onset of nucleation of crystals of the polymorph of the known substance from the supersaturated solution; and

c. subjecting the supersaturated solution to the light for a period of time so as to induce the onset of nucleation of the crystals of the polymorph, wherein the known substance is not urea or alumina hydrate and the light is at most minimally absorbed by the supersaturated solution and whereby the selected polarization state of the light controls the polymorph structure of the crystal.

47. (new) The method of preparing a crystal polymorph as claimed in Claim 46, wherein the supersaturated solution is aged for a period of 1 hour to 200 hours.

48. (new) The method of preparing a crystal polymorph as claimed in Claim 47, wherein the wavelength of the light is near infrared.

49. (new) The method of preparing a crystal polymorph as claimed in Claim 48, wherein the wavelength of the light is 1064 nm.

50. (new) The method of preparing a crystal polymorph as claimed in Claim 49, wherein the polymorph is used as a substitute for known polymorphs made under known conditions.

51. (new) The method of preparing a crystal polymorph as claimed in Claim 49, wherein the polymorph is used as a seed material to create larger amounts of the polymorph to be used in known processes.

52. (new) The method of preparing a crystal polymorph as claimed in Claim 49, wherein supersaturation is achieved by a method selected from the group consisting of cooling, heating, solvent evaporation, and altering solvent composition.

53. (new) The method of preparing a crystal polymorph as claimed in Claim 52, wherein the solvent is selected from the group consisting of organic solvents, inorganic solvents, and supercritical solvents.

54. (new) The method of preparing a crystal polymorph as claimed in Claim 53, wherein the substance is selected from the group consisting of pharmaceuticals, amino acids, peptides, proteins, carbohydrates, amines, alkanes, alkenes, alkynes, aromatics, heterocyclic compounds, alcohols, organometallics, and carboxylic acids.

55. (new) The method of preparing a crystal polymorph as claimed in Claim 49, wherein the light is a laser light and the laser light is pulsed.

56. (new) The method of preparing a crystal polymorph as claimed in Claim 55, wherein the laser light is pulsed at between 1 and 100 pulses per second.

57. (new) The method of preparing a crystal polymorph as claimed in Claim 55, wherein the laser light pulses at 10 pulses per second.

58. (new) The method of preparing a crystal polymorph as claimed in Claim 55, wherein the supersaturated solution is subjected to the laser light for a period of between 0.01 second and 1 hour.

59. (new) The method of preparing a crystal polymorph as claimed in Claim 55, wherein the supersaturated solution is subjected to the laser light for a period of between 0.01 second and 60 seconds.